COVID-19 Pediatric Vaccination

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What is COVID-19?

- It is a contagious disease caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2).
- Symptoms of COVID-19 are variable, but often include fever, cough, headache, fatigue, breathing difficulties, and loss of smell and taste.
- COVID-19 transmits when people breathe in air contaminated by droplets and small airborne particles containing the virus.
- The risk of breathing these in is highest when people are in close proximity, but they can be inhaled over longer distances, particularly indoors.
- Transmission can also occur if splashed or sprayed with contaminated fluids in the eyes, nose or mouth, and, rarely, via contaminated surfaces.
Recent Statistics

- Reported COVID-19 cases among children have spiked dramatically across the United States. The past week nearly 1 million cases were reported, four times the rate of the peak of last winters’ surge.

- Nearly 9.5 million children have tested positive for COVID-19 since the onset of the pandemic; 10% of these cases have been added in the past week. For the 23rd week in a row child COVID-19 cases are above 100,000. Since the first week of September, there have been over 4.4 million additional child cases.
Proportion of COVID-19 Weekly Cases in Children by Age Group per HHS Region, United States

July 18, 2021 - January 15, 2022

Region 2

Age Group

- 0 - 4 Years
- 5 - 11 Years
- 12 - 17 Years
Rates of COVID-19-Associated Hospitalizations by Vaccination Status in Adolescents Ages 12–17 Years, June–December 2021

- Rate in Fully Vaccinated Persons
- Rate in Unvaccinated Persons

<table>
<thead>
<tr>
<th>Week</th>
<th>Rate per 100,000 population</th>
</tr>
</thead>
<tbody>
<tr>
<td>6/28/2021</td>
<td>0.5</td>
</tr>
<tr>
<td>7/11/2021</td>
<td>0.6</td>
</tr>
<tr>
<td>7/14/2021</td>
<td>0.7</td>
</tr>
<tr>
<td>8/11/2021</td>
<td>1.0</td>
</tr>
<tr>
<td>8/21/2021</td>
<td>1.3</td>
</tr>
<tr>
<td>9/4/2021</td>
<td>2.5</td>
</tr>
<tr>
<td>9/18/2021</td>
<td>3.0</td>
</tr>
<tr>
<td>10/2/2021</td>
<td>2.8</td>
</tr>
<tr>
<td>10/16/2021</td>
<td>2.2</td>
</tr>
<tr>
<td>10/23/2021</td>
<td>2.0</td>
</tr>
<tr>
<td>11/13/2021</td>
<td>1.8</td>
</tr>
<tr>
<td>11/27/2021</td>
<td>1.6</td>
</tr>
<tr>
<td>12/11/2021</td>
<td>1.4</td>
</tr>
<tr>
<td>12/25/2021</td>
<td>1.2</td>
</tr>
</tbody>
</table>
Why is it important for my child to get vaccinated?

- COVID-19 vaccines reduce the risk of people getting COVID-19 and can also reduce the risk of spreading it. The risk of severe illness is much greater for people who are not vaccinated against COVID-19.
- COVID-19 vaccines are safe and effective at preventing severe illness and death from COVID-19.
- CDC recommends everyone ages 5 years and older get an age-appropriate COVID-19 vaccine to help protect against COVID-19.
What is an mRNA Vaccine and how does it work?

https://vimeo.com/580744929/d8086c7cbf
## Ingredients in the Vaccine

<table>
<thead>
<tr>
<th>Type of Ingredient</th>
<th>Ingredient</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Messenger ribonucleic</td>
<td>Nucleoside-modified mRNA encoding the viral spike (S) glycoprotein of SARS-CoV-2</td>
<td>Provides instructions the body uses to build a harmless piece of a protein from the virus that causes COVID-19. This protein causes an immune response that helps protect the body from getting sick with COVID-19 in the future.</td>
</tr>
<tr>
<td>acid (mRNA)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lipids (fats)</td>
<td>2[(polyethylene glycol (PEG))-2000]-N,N-ditetradecylacetamide</td>
<td>Work together to help the mRNA enter cells.</td>
</tr>
<tr>
<td></td>
<td>1,2-distearoyl-sn-glycero-3-phosphocholine</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cholesterol (plant derived)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>((4-hydroxybutyl)azanediy1)bis(hexane-6,1-diy1)bis(2-hexyldecanoate)</td>
<td></td>
</tr>
<tr>
<td>Sugar and acid stabilizers</td>
<td>Sucrose (table sugar)</td>
<td>Work together to help keep the vaccine molecules stable while the vaccine is manufactured, frozen, shipped, and stored until it is ready to be given to a vaccine recipient.</td>
</tr>
<tr>
<td></td>
<td>Tromethamine</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Tromethamine hydrochloride</td>
<td></td>
</tr>
</tbody>
</table>
Who Should Vaccinate?

Most Children and All Teens Can Get COVID-19 Vaccines

CDC recommends everyone ages 5 years and older get a COVID-19 vaccine to help protect against COVID-19.

<table>
<thead>
<tr>
<th>Authorized For</th>
<th>Pfizer-BioNTech</th>
<th>Moderna</th>
<th>J&amp;J / Janssen</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 years and under</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>5-11 years old</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>12-17 years old</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>18 years and older</td>
<td>Yes</td>
<td>Yes</td>
<td>*</td>
</tr>
</tbody>
</table>
Why Children and Teens Should Get Vaccinated for COVID-19

- Children are as likely to be infected with COVID-19 as adults and can
  - Get very sick from COVID-19
  - Have both short and long-term health complications from COVID-19
  - Spread COVID-19 to others, including at home and school

- As of mid-January 2022, children ages 5 through 11 years have experienced a significant increase in COVID-19 related hospitalizations. In fact, COVID-19 ranks as one of the top 10 causes of death for children ages 5 through 11 years.

- Children who get infected with COVID-19 can also develop serious complications like multisystem inflammatory syndrome (MIS-C)
Benefits of Vaccine

Getting a COVID-19 vaccine can help protect children ages 5 years and older from getting COVID-19.

- Vaccinating children can help protect family members, including siblings who are not eligible for vaccination and family members who may be at increased risk of getting very sick if they are infected.
- Vaccination can also help keep children from getting seriously sick even if they do get COVID-19.
- Vaccinating children ages 5 years and older can help keep them in school and help them safely participate in sports, playdates, and other group activities.

Help protect your whole family and slow the spread of COVID-19 in your community by getting yourself and your children ages 5 years and older vaccinated against COVID-19.
Is it safe?

The benefits of COVID-19 vaccination outweigh the known and potential risks. Get a COVID-19 vaccine for children ages 5 years and older as soon as you can.

COVID-19 vaccines are being monitored for safety with the most comprehensive and intense safety monitoring program in U.S. history. CDC monitors the safety of all COVID-19 vaccines after the vaccines are authorized or approved for use.

- Your child may get a COVID-19 vaccine and other vaccines, including flu vaccine, at the same time.
- Serious health events after COVID-19 vaccination are rare.
- Cases of myocarditis (inflammation of the heart muscle) and pericarditis (inflammation of the outer lining of the heart) have been reported after Pfizer-BioNTech COVID-19 vaccination of children ages 12–17 years. These reactions are RARE; in one study, the risk of myocarditis after the second dose of Pfizer-BioNTech in the week following vaccination was around 54 cases per million doses administered to males ages 12–17 years.
  - During clinical trials, no cases of myocarditis occurred in children ages 5 through 11 years who received the COVID-19 vaccine.
- A severe allergic reaction, like anaphylaxis, may happen after any vaccine, including COVID-19 vaccines, but this is RARE.
- Your child cannot get COVID-19 from any COVID-19 vaccine, including the Pfizer-BioNTech vaccine.
- There is no evidence that COVID-19 vaccines cause fertility problems.
COVID-19 Vaccine Dosage and Administration for Children and Teens?

- Unlike many medications, COVID-19 vaccine dosage does not vary by patient weight but by age on the day of vaccination.
- Adolescents ages 12 years and older receive the same dose of Pfizer-BioNTech COVID-19 vaccine as adults.
- Children ages 5 through 11 years receive an age-appropriate dose of the Pfizer-BioNTech COVID-19 vaccine.
  - The Pfizer-BioNTech COVID-19 vaccine for children ages 5 through 11 years has the same active ingredients as the vaccine given to adults and adolescents.

- Your child will need a second shot of the Pfizer-BioNTech vaccine three weeks after their first shot.
  - If a child turns from 11 to 12 years of age in between their first and second dose, the second dose should be the Pfizer-BioNTech vaccine for people 12 years and older. However, if the child receives the Pfizer-BioNTech COVID-19 vaccine for children ages 5 through 11 for their second dose, they do not need to repeat the dose.
Teens Ages 12 and Older Can Get a Booster Shot

- Teens ages 12 to 17 years old should receive the Pfizer-BioNTech COVID-19 booster shot at least 5 months after completing their Pfizer-BioNTech COVID-19 primary series.

- Currently, a booster shot is not recommended for children younger than 12 years old.
Possible side effects

Your child may have some side effects, which are normal signs that their body is building protection.

On the arm where your child got the shot:
- Pain
- Redness
- Swelling

Throughout the rest of their body:
- Tiredness
- Headache
- Muscle pain
- Chills
- Fever
- Nausea
Common Myths and Facts about COVID-19 Vaccines for Children

MYTH: The COVID-19 vaccine for children is not safe.
FACT: The COVID-19 vaccine for children between the ages of 5 to 11 years has undergone thorough evaluations by both FDA and CDC. COVID-19 vaccines have and will continue to undergo the most intensive safety monitoring in U.S. history.

MYTH: It is safer for my child to build immunity by getting infected with COVID-19 than to build immunity by getting the vaccine.
FACT: Getting children ages 5 years and older vaccinated against COVID-19 is the best way to protect them from COVID-19.

MYTH: COVID-19 vaccines cause fertility and other reproductive issues.
FACT: There is no evidence that any of the COVID-19 vaccines cause fertility problems in women or men.

MYTH: Because children are not seriously harmed by COVID-19, getting vaccinated is not worth the risk.
FACT: The benefits of COVID-19 vaccination for children ages 5 through 11 years outweigh the known and potential risks.
Where can I get Vaccinated?

Find a COVID-19 vaccine: Search vaccines.gov, text your ZIP code to 438829, or call 1-800-232-0233 to find locations near you.
Questions?
References


https://www.who.int/emergencies/diseases/novel-coronavirus-2019

https://www.cdc.gov/media/subtopic/images.htm